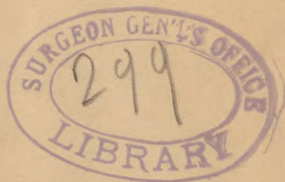


Ayer (J.B.)

CASES OF INSANITY FOLLOWING
ACUTE DISEASES.

—
BY JAMES B. AYER, M.D.
OF BOSTON.

Read at the Annual Meeting of the Massachusetts Medical Society, June 10, 1879.



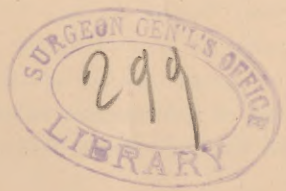
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J. J. B. Ayer

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CASES OF INSANITY FOLLOWING ACUTE DISEASES.

I WILL give briefly the history of two patients under my care for mental disturbance following pneumonia.

One was a hotel waiter, thirty years of age, who had a previously healthy record and without hereditary tendency to insanity.

The lower lobe of his right lung was consolidated, but the fever was mild—the highest temperature noted was 102.6° , the pulse at that time being 109, and respiration 26. At the crisis, which took place on the sixth day, the patient was delirious for a few hours. The delirium entirely disappeared and resolution went on so rapidly that, at the end of thirty-six hours, there were but few traces of local trouble remaining. The temperature had fallen to 98.8° , pulse 84, and respiration 16.

At this time his face became suddenly flushed and great excitement followed. He insisted upon putting on his clothes, and succeeded in tearing himself away from his friends and running into the next room, declaring that there was a man there whom it was his duty to see.

With difficulty his friends returned him to bed. He continued restless and noisy, full of delusions and hallucinations of sight and hearing.

He had also delusions regarding food and medicine, and took nothing without a great deal of urging.

He escaped a second time from his attendants, ran to the bureau and took out a razor which he carried to his overcoat and laid in one of his pockets.

Strangers were called in to take care of him, as he was excited by the presence of his wife and relatives, and constantly threatened them with violence.

Bromide of potash in scruple doses was given every hour or two—also three ten grain doses of chloral; yet thirty-eight hours elapsed before the patient fell into a sound sleep.

He woke free from delusions, and with a sound mind. He made a rapid recovery, and has been well since.

The second patient—a lady, forty-four years of age—had worried a great deal during the preceding year, and had over-tasked her mind by hard study. Her parents and grand-parents had been free from mental disease.

She passed through a very mild attack of pneumonia (the lower part of the right lower lobe being involved), which culminated on the fifth day. Although the fever was mild, it was attended by considerable nervous disturbance.

On the second day after the crisis the head became suddenly congested and the patient became excited. Slight traces only of the lung trouble were found remaining. The pulse was generally between seventy and ninety.

At first excitement was controlled by doses of bromide of potash (gr. x.—xx.), given every hour, but soon this remedy lost its effect. Chloral proved of still less service. Finally morphia seemed required, and was given twice subcutaneously ($\frac{9}{30}$ and $\frac{1}{2}$ grain doses), on each occasion followed by several hours of sleep.

The day following the outbreak the catamenia appeared, and the flow continued a couple of days.

During the first week of excitement most of the nourishment was given through the feeding-tube.

Since that time food and iron mixture have been taken quite regularly, and of late but little sedative medicine has been required. Now, at the end of twelve weeks, we can notice marked improvement in the patient's *physical* condition, but in regard to the *mental* state the prognosis is

uncertain, delusions of all kinds with hallucinations and occasional periods of excitement remaining.

Our first case is a good example of the *transitory form* of post-febrile insanity described by Weber,¹ who reports several cases of from eight to forty-eight hours' duration, following various acute diseases. It is now a well recognized form of insanity.

The history of the second case was identical in most points with that of the first mentioned, but the pre-existing causes, together with the constitutional disturbance attending the menopause, have given it a character much more grave.

These are typical cases of insanity following and caused by an acute disease which both poisoned the blood and exhausted the patient. These cases of post-febrile insanity could not be mistaken for delirium.

Whether or no a *specific difference* exists between mania and delirium it will not be necessary to discuss. Dr. Ray and others, who insist that the line *can* be drawn between them, admit that mental aberrations and some of the physical symptoms of mania resemble closely those of delirium.

But fortunately there is a well marked *clinical distinction* which will always aid us. It is insisted upon by Dr. Clouston, whom I will quote.² "The delirium that so often complicates fevers is wonderfully like the maniacal symptoms of many kinds of insanity, and unquestionably the general state of the brain cells must be much the same in the two conditions. *Yet I never knew an attack of inflammatory or feverish delirium to run on without an intermission into an attack of maniacal excitement, however predisposed the patient might be to insanity.*"

If this distinction were well borne in mind, patients delirious from typhoid fever, or from cerebro-spinal and other

¹ Med. Chirurg. Transac., vol. xlviii.

² Morisonian Lectures for 1873, on Insanity—Journal of Mental Science.

forms of meningitis, would not be sent to asylums for the insane—a mistake occasionally made.

Griesinger states that a German psychologist, delirious from typhus (typhoid?) fever, was sent to an asylum as insane by one of his colleagues.

Regarding the frequency of insanity following acute disease :

The *transitory form* of post-febrile insanity is rare—there are very few cases on record.

Cases of the more grave character are found in all asylums for the insane, but have been little studied.

Dr. Clouston¹ has gone over the records of a thousand cases at the Carlisle Asylum, and found ten (one per cent.) of post-febrile insanity. He states that he is not acquainted with fuller statistics upon the subject. Insanity following catarrhal and pulmonary diseases, is not classified in his tables.

Four of the cases followed Scarlatina.					
Two	"	"	"	"	Variola.
One	"	"	"	"	Typhus.
One	"	"	"	"	Typhoid.
One	"	"	"	"	Intermittent.
One	was	.	.	.	Uncertain.

Two only recovered (one case following scarlatina and the post-intermittent case); the remaining eight became hopelessly demented or melancholic. Post-febrile insanity he regards as generally incurable.

Hoping that the comparison of a large number of cases would show more favorable results, I searched Asylum reports. Usually "Insanity following Acute Diseases" was tabulated under the head of "Insanity from Ill Health." However, I found 37,440 cases tabulated in this respect, of which 780—a trifle more than two per cent.—followed acute disease. Two-thirds of these cases followed "fevers"—principally typhoid.

¹ Morisonian Lectures on Insanity, for 1873.

Regarding recovery the statistics were very meagre. Of the few cases reported, 36 per cent. recovered.

Through the kind permission of Dr. Jelly, who has also given me valuable aid, I have been able to consult the records of the McLean Asylum, and am prepared to make the following report :

From the records for forty-three years, embracing 5116 cases, I have tabulated sixty-two cases, following and probably caused by acute disease—a little more than one per cent.—but several cases were omitted from the table on account of deficient history which probably deserved to be enumerated.

Between the English statistics and ours, both in the order of frequency of the predisposing diseases and in the results, there is a very marked difference.

There were cases of insanity from—

		Well.	Im- prov'd.	Total.	Not im- prov'd.	Died.	Total.
"Fever" (principally typhoid),	27	16	4	20	4	3	7
Erysipelas	7	2	2	4	2	1	3
Intermittent Fever	4	0	1	1	1	2	3
Variola and Varioloid	4	3	0	3	1	0	1
Scarlatina	2	0	0	0	2	0	2
Yellow Fever	1	0	1	1	0	0	0
Acute Catarrhal Affections	7	3	2	5	0	2	2
Pneumonia	3	1	0	1	1	1	2
Pleurisy	3	1	1	2	0	1	1
Throat Affection (severe)	1	0	0	0	1	0	1
Dysentery	3	1	0	1	2	0	2
	62	27	11	38	14	10	24

A total of 62 cases, of which number 27 (43.5 per cent.) recovered ; 11 (17.8 per cent.) were removed, more or less improved ; 14 (22.6 per cent.) showed no sign of improvement ; and 10 (16.1 per cent.) died.

During the 43 years the average of recoveries of *all the patients admitted to the Asylum* was $44\frac{1}{3}$ per cent.

To compare post-febrile cases with a form of insanity which is considered favorable to recovery, I have analyzed

sixty-seven cases of puerperal insanity, with the following results :

Of puerperal cases 39 per cent. recovered, and 25 per cent. were improved when taken away from the asylum.

Of post-febrile cases $43\frac{1}{2}$ per cent. recovered, and $17\frac{3}{4}$ per cent. were improved.

Favorable puerperal cases recovered in an average of one hundred and eighty-seven days. Post-febrile cases in one hundred and ninety-five days.

Of the cases in which mention is made in regard to hereditary tendency to insanity, it was found that a little more than half of the number were *non*-hereditary.

Hereditary cases progressed as favorably as those in which there was no family taint.

Fever Cases were the most numerous, and were very favorable—sixteen out of twenty-seven making a good recovery. As in all post-febrile cases there were often other predisposing causes at work, but the acute disease was the important factor. Insanity generally appeared in the advanced convalescence from fever. Mania was the most common form, though all species of insanity were noticed. Delirium was frequently present when the fever was at its height, but disappeared before insanity was observed. The average duration of favorable cases was two hundred and thirty-four days.

Contrary to the experience of Griesinger, who states that chronic insanity following typhoid fever has *always* an unfavorable prognosis, of the five cases in our table, in which insanity continued upwards of one year, two recovered.

Erysipelatous cases generally developed mental disturbance in advanced convalescence. Facial erysipelas was the usual form. The average duration of the two favorable cases was one hundred and twelve days.

None of the *intermittent cases* were marked "well." One case was marked "tertian intermittent"—the type of the

other cases was not mentioned. Melancholia was the usual form of mental disease.

I found the record of one patient who had been admitted for the third attack of mental derangement, *not* connected with acute disease, in whom the first and second attacks followed intermittent fever for which she was treated in another institution.

Three cases of *Insanity following varioloid* are mentioned, all of which recovered in an average of one hundred and sixty-seven days. *The case following variola* remained in a "flighty state" when removed from the asylum. *Insanity following variola* is said to be most intractable.

Neither of the *scarlet fever cases* recovered. English statistics give this disease a prominence in the causation of insanity. Recovery is rarely found in this class of cases.

The cases grouped under the head of "*catarrhal*" were generally attributed to a "cold" from exposure to severe or changeable weather. Several cases in which suppressed menstruation was added to the catarrhal causes were considered metastatic in character and were not enumerated. Mania was the prevalent form. The average duration of favorable cases was three hundred and forty-three days.

Six cases followed *pneumonia and pleurisy*, of which two recovered: one in forty days, the other in three months. The former showed signs of mental disturbance ten days after the crisis—the date of the appearance of mental symptoms in the latter case is not given. One of the cases of insanity following pneumonia had the record of a similar attack following measles five years previously.

The case following dysentery, which recovered, took the form of mild mania, and in seven and one-half weeks was well.

I found considerable difficulty in selecting cases for my tables. Frequently I found histories of patients troubled with dyspeptic or typhoid symptoms, or symptoms of "slow fever," which soon disappeared, but left the mind not im-

proved. Cases of this kind I regarded as of cerebral character from the outset.

I cannot give a better illustration of this doubtful class of cases, than by quoting from Dr. Ray's description of the insanity of George the Third. He says, "The particulars of the King's first attack in 1765 (when twenty-seven years of age), was studiously concealed by his family, and its true character was not generally known at the time. Shortly before the attack an eruption on the face, which had troubled him for some years, had so entirely disappeared that it was supposed he had applied external remedies to repel it. This was followed by considerable cough and fever, and then by mental disturbance. In the course of a few weeks he completely recovered."

It is impossible, in this case, to make a true estimate of the importance of the "cough and fever" in causing insanity.

In the asylum records I found several interesting cases of *mania intercurrent with acute diseases*—cases of acute tuberculosis, acute Bright's disease, and abscess of the liver, where insanity was developed in the course of the disease and accompanied the patient to the end.

Insanity following brain congestion and meningitis (due generally to sunstroke or injuries) I have not included in the list, although there were twenty-two cases recorded in which there seemed to be a distinct intermission between the delirium of inflammation and the subsequent mental affliction. Thirty-two per cent. of these cases made a good recovery.

Rheumatic cases were likewise omitted, as rheumatic insanity is held to be a distinct form of mental disease. In some cases the metastasis from the joints to the brain was well marked. Of ten cases of rheumatic insanity, thirty per cent. recovered.

In children, nervous and brain diseases following fevers are precisely analogous to post-febrile insanity in the adult.

I recall the case of an infant three months old, under

the care of Dr. James Ayer for croupous pneumonia of the right lower lobe, in which the crisis took place on the sixth day, and the child was apparently doing well, although the fever had been severe and was accompanied by great dyspnoea. On the day following the crisis there were symptoms of brain congestion, which, two days later, became alarming. The temperature had at this time fallen to 101.2° . During the following seven days the morning temperature, never higher than 101.6° , gradually descended to normal. During the whole time there was intense heat of the head, requiring constant application of cold. Most of the symptoms of acute hydrocephalus were present. At the end of this time the cerebral symptoms began rapidly to disappear, and resolution of the consolidated lung, which had been interrupted, now progressed steadily until completed.

This history is not that of delirium, but of cerebral irritation occurring in the decline of an acute disease.

Finally, we cannot too carefully watch the convalescence of our patients recovering from acute diseases, remembering that insanity may follow the mildest cases, and that it may frequently appear in advanced convalescence when the patient is considered nearly well. Often I found in the records that mental derangement was attributed to the patients' "getting up too soon" after an acute disease.

If the slightest symptom of brain congestion appears, we should, if possible, ward it off by appropriate treatment.

As an unhealthy state of the blood is an important agent in producing mental disturbance, the administration of iron tonics early in convalescence is indicated.



